The following Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

Listing of The Claims:

1-25. (Cancelled)

26. (Currently Amended) A method for inhibiting bacterial growth ~~a bacterium~~, comprising contacting ~~said bacterium~~ bacteria with an amount of an inhibitor ~~active on~~ effective to reduce the activity of a polypeptide comprising the amino acid sequence of SEQ ID NO: 16 ~~or a gene encoding said polypeptide~~.

27. (Original) The method of claim 26 wherein said contacting is performed in vitro.

28. (Original) The method of claim 26 wherein said contacting is performed in vivo in an animal.

29. (Currently Amended) The method of claim 26 wherein said inhibitor is selected from the group consisting of a small molecule, a peptidomimetic compound, and a bacterial growth inhibitory bacteriophage polypeptide ~~and a fragment or derivative of a bacteriophage inhibitor protein~~.

30. (Previously Amended) The method of claim 26 wherein said inhibitor is a peptide synthesized by a recombinant expression system and purified, or artificially synthesized.

31. (Currently Amended) A method for treating a bacterial infection in an animal suffering from an infection, comprising administering to the animal a therapeutically effective amount of an inhibitor to reduce the activity of ~~active on~~ a polypeptide comprising the amino acid sequence

of SEQ ID NO: 16 ~~or a gene encoding the polypeptide~~, wherein said inhibitor treats said bacterial infection by reducing bacterial growth.

32. (Currently Amended) The method of claim 31 wherein said inhibitor is selected from the group consisting of a small molecule, a peptidomimetic compound, and a bacterial growth inhibitory bacteriophage polypeptide ~~a fragment or derivative of a bacteriophage inhibitor protein~~.

33. (Previously Amended) The method of claim 31 wherein said inhibitor is a peptide synthesized by expression systems and purified, or artificially synthesized.

34. (Cancelled)

35. (Currently Amended) A method of prophylactic treatment to prevent infection of an animal by a bacterium comprising administering to said animal an amount of an inhibitor effective to reduce the activity of ~~that is active on~~ a *S. aureus* DnaI polypeptide comprising the amino acid sequence of SEQ ID NO: 16, ~~or a gene encoding the polypeptide in an~~ wherein the amount of the inhibitor is sufficient to reduce adhesion of the bacterium to a tissue surface of said animal and thereby prevent said infection.

36-52. (Cancelled)

53. (Currently Amended) A method for inhibiting bacterial growth ~~a bacterium~~, comprising contacting ~~said bacterium~~ a bacteria with an effective amount of an inhibitor capable of decreasing the activity of ~~or decreasing the expression of~~ a polypeptide selected from the group consisting of:

- a polypeptide comprising the amino acid sequence of SEQ ID NO: 2;

- a polypeptide comprising the amino acid sequence of SEQ ID NO: 16; and

- a polypeptide comprising the amino acid sequence of SEQ ID NO: 18.

54. (Previously added) The method of claim 53, wherein said contacting is performed *in vitro*.

55. (Previously added) The method of claim 53, wherein said contacting is performed *in vivo* in an animal.

56. (Previously added) The method of claim 53, wherein said contacting is performed *in vivo* in a human.

57. (Currently amended) The method of claim 53, wherein said inhibitor is selected from the group consisting of a small molecule, a peptidomimetic compound, and a bacterial growth inhibitory bacteriophage polypeptide ~~fragment or derivative of a bacteriophage inhibitor protein~~.

58. (Previously added) The method of claim 53, wherein said an inhibitor is a peptide synthesized by a recombinant expression system and purified, or artificially synthesized.

59. (Currently Amended)) A method for inhibiting bacterial growth ~~a bacterium~~, comprising contacting ~~said bacterium~~ a bacteria with an amount of an inhibitor effective to decrease ~~capable of decreasing~~ the activity of ~~or decreasing the expression of~~ a polypeptide selected from the group consisting of:

- a DnaI polypeptide comprising at least 75% identity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 2;

- a DnaI polypeptide comprising at least 85% similarity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 2;

- a DnaI polypeptide comprising at least 75% identity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 16;

- a DnaI polypeptide comprising at least 85% similarity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 16;

- a DnaI polypeptide comprising at least 75% identity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 18;

- a DnaI polypeptide comprising at least 85% similarity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 18; and

- fragments comprising an amino acid sequence having at least 50 contiguous amino acids from the amino acid of SEQ ID NO: 2; SEQ ID NO: 16; and SEQ ID NO: 18;

wherein said polypeptide has an activity selected from the group consisting of:

a) directly interacting with bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof in a manner that results in at least 10 fold reduction of ^{3} H-thymidine incorporation in a bacterial DNA replication assay relative to ^{3} H-thymidine incorporation in an assay lacking bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof;

b) directly interacting with bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof in a manner that results in at least 10% inhibition of plasmid replication by bacteriophage 77 ORF 104 protein or a DnaI-binding fragment in a plasmid replication assay; and

c) aiding in the loading of S. aureus DnaC helicase onto replicative primosomes.

60. (Previously added) The method of claim 59, wherein said contacting is performed *in vitro*.

61. (Previously added) The method of claim 59, wherein said contacting is performed *in vivo* in an animal.

62. (Previously added) The method of claim 59, wherein said contacting is performed *in vivo* in a human.

63. (Currently amended) The method of claim 59, wherein said inhibitor is selected from the group consisting of a small molecule, a peptidomimetic compound, and a bacterial growth inhibitory bacteriophage polypeptide ~~fragment or derivative of a bacteriophage inhibitor protein~~.

64. (Previously added) The method of claim 59, wherein said inhibitor is a peptide synthesized by a recombinant expression system and purified, or artificially synthesized.

65. (Currently amended) A method for treating or preventing a bacterial infection in a mammal, comprising administering to said mammal a therapeutically effective or prophylactically effective amount of an antibacterial agent capable of decreasing the activity of ~~or decreasing the expression of~~ a polypeptide selected from the group consisting of:

- a polypeptide comprising the amino acid sequence of SEQ ID NO: 2;
- a polypeptide comprising the amino acid sequence of SEQ ID NO: 16; and
- a polypeptide comprising the amino acid sequence of SEQ ID NO: 18,

whereby a decrease of said activity reduces bacterial growth.

66. (Currently amended) A method for treating or preventing a bacterial infection in a mammal, comprising administering to said mammal a therapeutically effective or prophylactically effective amount of an antibacterial agent capable of decreasing the activity of ~~or decreasing the expression of~~ a polypeptide selected from the group consisting of:

- a DnaI polypeptide comprising at least 75% identity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 2;
- a DnaI polypeptide comprising at least 85% similarity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 2;
- a DnaI polypeptide comprising at least 75% identity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 16;
- a DnaI polypeptide comprising at least 85% similarity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 16;

- a DnaI polypeptide comprising at least 75% identity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 18;

- a DnaI polypeptide comprising at least 85% similarity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 18; and

- fragments comprising an amino acid sequence having at least 50 contiguous amino acids from the amino acid of SEQ ID NO: 2; SEQ ID NO: 16; and SEQ ID NO: 18;

wherein said polypeptide has an activity selected from the group consisting of:

a) directly interacting with bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof in a manner that results in at least 10 fold reduction of ^{3} H-thymidine incorporation in a bacterial DNA replication assay relative to ^{3} H-thymidine incorporation in an assay lacking bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof;

b) directly interacting with bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof in a manner that results in at least 10% inhibition of plasmid replication by bacteriophage 77 ORF 104 protein or a DnaI-binding fragment in a plasmid replication assay; and

c) aiding in the loading of S. aureus DnaC helicase onto replicative primosomes,

<u>wherein a decrease of said activity reduces bacterial growth</u>

67. (Previously added) A method for inhibiting a bacterium, comprising contacting the bacterium with an inhibitor binding to an active domain of *S. aureus* DnaI.

68. (Previously added) The method of claim 67, wherein said active domain comprises amino acids selected from the group consisting of amino acids 1-313, amino acids 64-313, and amino acids 150-313 from SEQ ID NO: 2.

69. (Previously added) The method of claim 67, wherein said inhibitor consists of an antibacterial agent inhibiting the biological activity of said *S. aureus* DnaI.

70. (Previously added) The method of claim 69, wherein said biological activity is selected from the group consisting of:

a) directly interacting with bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof in a manner that results in at least 10 fold reduction of ^{3} H-thymidine incorporation in a bacterial DNA replication assay relative to ^{3} H-thymidine incorporation in an assay lacking bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof;

b) directly interacting with bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof in a manner that results in at least 10% inhibition of plasmid replication by bacteriophage 77 ORF 104 protein or a DnaI-binding fragment in a plasmid replication assay; and

c) aids in the loading of *S. aureus* DnaC helicase onto replicative primosomes.

71. (Previously added) The method of claim 67, wherein said binding inhibits *S. aureus* DnaI activity of aiding in the loading of *S. aureus* DnaC helicase onto replicative primosomes.

72. (Previously added) The method of claim 67, wherein said inhibitor treats or prevents a *S. aureus* infection in a mammal.

73. (Previously added) The method of claim 72, wherein said mammal consists of a human.

74. (New) A method for inhibiting bacterial DNA synthesis, comprising contacting a bacterium with an effective amount of an inhibitor capable of decreasing the activity of a polypeptide selected from the group consisting of:

- a DnaI polypeptide comprising at least 75% identity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 2;

- a DnaI polypeptide comprising at least 85% similarity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 2;

- a DnaI polypeptide comprising at least 75% identity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 16;

- a DnaI polypeptide comprising at least 85% similarity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 16;

- a DnaI polypeptide comprising at least 75% identity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 18;

- a DnaI polypeptide comprising at least 85% similarity over 50 or more amino acids to the amino acid sequence of SEQ ID NO: 18; and

- fragments comprising an amino acid sequence having at least 50 contiguous amino acids from the amino acid of SEQ ID NO: 2; SEQ ID NO: 16; and SEQ ID NO: 18;

wherein said polypeptide has an activity selected from the group consisting of:

a) directly interacting with bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof in a manner that results in at least 10 fold reduction of ^{3} H-thymidine incorporation in a bacterial DNA replication assay relative to ^{3} H-thymidine incorporation in an assay lacking bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof;

b) directly interacting with bacteriophage 77 ORF 104 protein or a DnaI-binding fragment thereof in a manner that results in at least 10% inhibition of plasmid replication by bacteriophage 77 ORF 104 protein or a DnaI-binding fragment in a plasmid replication assay; and

c) aiding in the loading of S. aureus DnaC helicase onto replicative primosomes,

wherein said decrease in activity inhibits bacterial DNA synthesis.

Amendments to the Drawings:

The attached 24 sheets of drawings include changes to Figs. 2, 6, 7, 11, 12, and 14:

Sheets 1-14, which includes Figs. 2, replaces the sheets that includes Figs. 2.

Sheet 15-20, which includes Figs. 6A and 6B, replaces the sheet that includes Figs. 6.

Sheet 21, which includes Figs. 7, replaces the sheet that includes Figs. 7.

Sheet 22, which includes Figs. 11, replaces the sheet that includes Figs. 11.

Sheet 23, which includes Figs. 12, replaces the sheet that includes Figs. 12.

Sheet 24, which includes Figs. 14A, replaces the sheet that includes Figs. 14A.

Attachment: 24 replacement sheet(s).